

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006750**Date Inspected:** 15-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** Steve Barnett**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Hinge-K Components**Summary of Items Observed:**

Summary of Items Observed: On this date, Caltrans Quality Assurance Inspector (QA) Clete Henke was present at Oregon Iron Works, Inc. (OIW) in Clackamas, OR for observation of fabrication of the Hinge K Pipe Beams and related activities including in process welding and OIW Quality Control (QC) visual and nondestructive testing. The following observations were recorded:

OIW Fabrication Shop –Bay 1 North

Shortly after arrival, the QA Inspector was contacted by OIW Lead QC Inspector Mike Gregson and informed that Dye Penetrant (PT) Testing was about to be initiated on Gas Tungsten Arc Welding (GTAW) procedure qualification record (PQR) plate identified as SSCS-012. The QA Inspector met OIW QC Inspector Jose Salazar and observed as Mr. Salazar performed the testing described above. After the application of developer, there were several indications apparent and Mr. Salazar indicated that OIW production intended to grind the locations in question and re-test the affected areas. After the locations were ground, the QA Inspector observed as OIW Lead QC Inspector Mike Gregson performed the testing again with multiple indications still visible. Mr. Gregson indicated that OIW production would likely elect to have the test plate machined down to the minimum level of reinforcement and tested again in an attempt to achieve an acceptable result. As of this date, the results of the PT described above are not in compliance with contract requirements.

OIW Fabrication Shop-Bay 3**Hinge-K Pipe Beam Fuse Sub-Assembly 120A-6:**

a125 stiffener ring to a124-9 Fuse

With the exception of continuous pre-heat, the QA Inspector observed no production activity on the assembly

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noted above for the duration of the shift. OIW QC Inspector Steve Barnett stated that production was short a welder due to a family emergency.

Hinge-K Pipe Beam Base Assembly 102A-1:

a111-1 forging to a110-4 base plate

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Base Assembly 102A-2:

a111-2 forging to a110-2 base plate

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Base Assembly 102A-3:

a111-3 forging to a110-3 base plate

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Base Assembly 102A-4:

a111-4 forging to a110-1 base plate

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Fuse Assembly 120A-1:

a124-6 to a124-7

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Fuse Assembly 120A-2:

a124-3 to a124-11

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Fuse Assembly 120A-4:

a124-13 to a124-4

The QA Inspector observed no production activity on the assembly noted above for the duration of the shift.

Hinge-K Pipe Beam Fuse Assembly 120A-5:

a124-14 to a124-2

The QA Inspector observed in-progress Submerged Arc Welding (SAW) at Inside Diameter (ID) portion of circumferential weld joining a124-14 to a124-2 identified as WM3-18 on approved shop drawings. OIW welder Bui Liem (WID B10) deposited SAW fill and cover passes in the flat (1G) position in accordance with approved welding procedure 4020. The QA Inspector noted the OIW welder was maintaining continuous preheat utilizing two torches. The QA Inspector observed OIW QC Inspector Steve Barnett regularly monitoring and recording the in process SAW parameters. The QA Inspector also intermittently observed the in process welding parameters and determined that the SAW parameters and minimum preheat/interpass temperature appeared to be in general compliance with the contract requirements -- (33 volts, 525 amperes, 457mm/min travel speed).

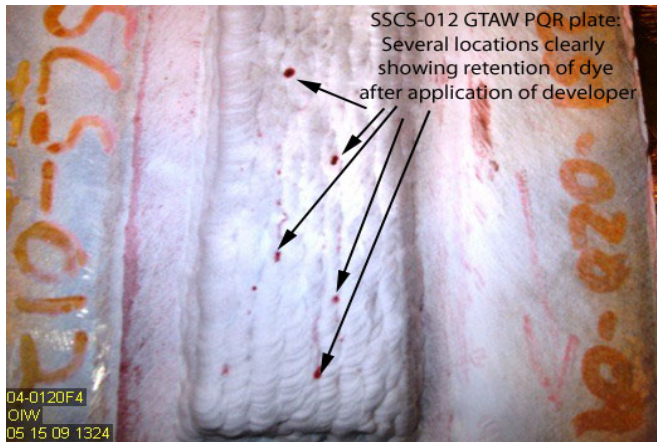
Material, Equipment, and Labor Tracking:

The QA Inspector performed verification of personnel involved with this project and equipment in use. The

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QA Inspector accounted for 2 OIW production personnel and 1 Quality Control Inspector present on this date.



Summary of Conversations:

As noted in the body of the report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677 , who represents the Office of Structural Materials for your project.

Inspected By: Henke,Clete

Quality Assurance Inspector

Reviewed By: Adame,Joe

QA Reviewer